**Ecological Pyramids**

*2.1.4 Explain the principles of pyramids of numbers, pyramids of biomass, and pyramids of productivity, and construct such pyramids from given data*

*2.1.5 Discuss how the pyramid structure affects the functioning of an ecosystem*

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|  | **A** | **B** | **C** |
|  | Number Pyramid | Biomass Pyramid  (kJ m-2) | Productivity Pyramid  (kJ-2/yr) |
| Primary Producers | 100,000 | 2,500 | 500 |
| Primary Consumers | 10,000 | 200 | 50 |
| Secondary Consumers | 2,000 | 15 | 5 |
| Tertiary Consumers | 500 | 1 | -- |

Things to look at in Ecological Pyramids:

* The concentration of toxic substances in food chains
* The vulnerability of top carnivores
* The limited length of food chains

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| **Type of Pyramid** | **Units** | **Description** | **Pros and Cons** |
| Pyramid of Numbers | a number |  | Pros:  Cons: |
| Biomass Pyramid | g m-2 (land)  g m-3  (liquids)  J (energy content) |  | Pros:  Cons: |
| Pyramid of Productivity | Jm-2/yr |  | Pros:  Cons: |